

## Fun Planned For PPRAA Picnic August 8, Two Ham Movies Feature Of August 11 Meeting

August seems to be "entertainment month" for the PPRAA, with the annual club picnic Sunday August 8, starting about 3 p.m. in the Black Forest Recreational Area and the regular August 11 PPRAA meeting being "Wednesday Night at the Movies." The map showing the way to the picnic area appeared in last month's Zero Beat--the regular meeting on Wednesday evening will be, as usual in the Security Savings East building, East Platte and Union Boulevard, with doors open by 7 and meeting at 7:30.

The menu planned for the picnic is hamburger and hot dogs cooked by "experiences chefs"--we call them that, now that they have cooked more than 300 steaks at the Chuck Wagon Convention Supper.

The rest of the food will be prepared by the "best cooks ever"--the PPRAA gals.

"Smitty," who lives in Black Forest, has promised to stage a sit in so we'll be sure to have the picnic area and Paul King, W0KSB, says "anything I can do to make the picnic a good one--let me know." Both "Smitty" and Paul are, of course, PPRAA members.

Two features of the picnic will be a transmitter hunt spearheaded by Doug Wilson, WA0VSL, on 2 meter AM and GM and the usual softball game spearheaded by whoever takes the notion--each has been asked to bring his own glove and ability--bats will be on hand for the game.

John Kester, WA0LVL (635-2228) or Rosie Lewis (632-5721) would appreciate a call to learn how many in each PPRAA member's family will attend. They also recommend each bring table service and perhaps some coffee if that is their drink. There will be soft drink available.

The two movies which will be the main feature of the Wednesday night regular meeting will be on ham radio--"Hams Wide World"--which has already been shown many times on TV and at many club meetings throughout the nation, and a new film "This is Ham Radio," according to Irv Ebel, W0KWV, in charge of the evening's program. There will also be the usual door prizes and coffee break.

-0-0-0-

### Little News Available On New Mexico Hamfest

Recently received the 19 July 1971 issue of the New Mexico Ham from Albuquerque and thought we might reprint something from it about the New Mexico Hamvention, in case any Zero Beat readers were interested in attending.

However, looking through the nine pages of the issue, there was little or nothing about when the Hamvention was to be, where it was to be, price for registration and/or meals or anything

(Continued on Page 4)

## 2Meter AM Group Active, Start Work On Repeater Check Ins Are Invited

By Doug Wilson, WA0VSL

Since the convention 2 meter AMers have had the pleasure of having the following out-of-towners on frequency: WA0BSL/0, WA0OMW/0, W0JSW/0, K9IEY/0, WA0SLX/0. Also W6IEY/0, who stopped for an eyeball QSO with me. We were happy to offer our assistance to those folks and pleased that some of them checked into our net. A reminder to all with 2 meter AM capability--the 2 meter AREC Net meets Sunday and Wednesday 2000 local time.

The 2 meter AM repeater is progressing. An ARC-3 receiver and transmitter have been donated by Smitty and Wilbert Gordon, respectively. The control cables are on order and the power supplies are being built. The frequencies for the repeater have caused some controversy which has made for some very interesting nets and QSOs. Anyone who might be interested in using the repeater should check into a net session and make his ideas known.

Research on a AM linear repeater is in progress. A letter from Amsat is expected with information. Anyone interested in this should contact me at 633-7376.

## What Is SSN?

By Chris Grant, W0LRW  
Phone Activities Manager 160 Meters  
Manager, Silver State Net

SSN is the Silver State Net, an experimental concept in traffic nets. SSN is basically a phone net but with procedures which are a blend of phone net friendliness and CW net precision. AM, CW and SSB checkins are equally welcome--obviously the net control stations must have some CW proficiency.

Where can we mix CW and phone without making anyone unhappy? On 160 meters--of course--where the modes share the spectrum equally. 160 also offers a band where QRM is minimal and propagation is as good or better than 75 meters for point-to-point contact throughout Colorado.

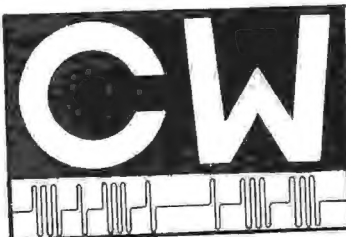
SSN was initiated in October 1970 with two major objectives: first, to offer an outlet for message traffic going outside Colorado; second, to attract stations in all parts of Colorado for distribution of incoming traffic and intrastate traffic.

The first objective was rather easy to accomplish. SSN was made a part of the National Traffic System with regular (every night) representation to the Twelfth Region Net (TWN) for getting messages across state boundaries.

The second objective has been only partially successful. We have plenty of Denver Metro stations and a few others in low-population-density areas, but so far we have yet to hear from such places as Colorado Springs, Pueblo, Fort Collins or Grand Junction. Why?

The answer is probably tied up in the choice of bands. It takes a little extra effort to get on 160 meters. Is it worth it? The SSN gang thinks so! 160 is a band to be rediscovered!

Serving as an SSN member is one  
(Continued on Page 5)



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## ZERO BEAT

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the fraudulent 'examination', faces exposure, disgrace and possible prison sentence.

"Let's hope the FCC really gets tough!"

-o-

And from the same source comes this interesting bit of news, reprinted from the "Oklahoma Journal Supplement on Air Conditioning":

"Does stress induced by heat and humidity affect worker performance? The answer is very definitely yes. The Rochester Gas and Electric Corp. compiled a number of studies on worker efficiency. One test of a radio operator's reception of code showed that his mistakes rose sharply as the thermometer went up. At 79 degrees he made 12 mistakes in an hour. At 97 degrees he made 90 mistakes in the same period of time."

The moral of which, of course, is if you're copying CW on a hot day and continually make mistakes--you've got a good excuse!

-o-

Don't ever get caught as short as we nearly were. We knew our ticket was to expire this year but somehow had the thought it was in October. Even had an application for renewal all made out and ready to send in to Friendly Charlie Charlie. Then one day last month we happened to check the expiration date and discovered that the expiration date was only four weeks away! You can be sure that a letter went off to Washington immediately--closest we have ever come since we got our original ticket in 1937!

---Frank, WØHWH

## EDITORIAL

### The FCC Finally Comes Through!!

We felt that the following editorial which appeared in the July 1971 issue of the Aeronautical Amateur Radio Club "Collector and Emitter" was so pertinent to amateur radio operation and the conduct of amateur radio operators that it should be reprinted for readers of Zero Beat to consider as well.

(And this being summer and our editorial "think-tank" taking a vacation, this provides us with a good editorial for this issue).

"If the reports currently being circulated are correct (and pray that they are), the FCC finally has made a move to clamp down on cheating and lying so prevalent in connection with obtaining the Technician Class license. There are many honest and capable holders of Technician Class licenses. They, unfortunately, have had their reputations besmeared (by association) by the liars and cheats who obtain their licenses by perjury.

"These contemptible cheats and their equally-detestable confederates, the already licensed amateurs (no, let me use ham here and not disgrace the honorable term, amateur) who connived to violate not only the laws of our country but also every aspect of honor and decency, have forfeited all rights to the fellowship of amateur radio.

"If the reports be true, then the FCC has started to call in holders of Technician Class licenses, here in Greater Oklahoma City, to appear before FCC examiners and demonstrate that they have a right to be considered radio amateurs. The honest and honorable Technician has nothing to fear. In fact, he should rejoice, for by passing the examination he can dispell the last vestige of doubt concerning his qualifications to hold an amateur radio operator license.

"The liar and cheat, though, and the co-liar and co-cheat who administered

leading to the space underneath the driver's seat. I reached under the seat and found nothing but empty space. The TPL was gone!!

"Now there was a big empty space under my belt, too. More things began to be missed. My green metal "fishing tackle type tool box. With it, tools that had become a part of me through 50 years of ham radio. . . There were many tuning tools I had used so many times lining up the TPL and many other transceivers.

"Extra crystals for other VHF channels and for the base rig at home. All gone!! Plus a green cardboard compartmented box containing small parts, several VHF coax connectors, some never used. A box of half inch drive socket wrenches with ratchet handle. Even a tire pressure gage and a flashlight was taken from the glove compartment. Also a hand-carried spot light with red flasher.

(Continued on Page 4)

### A Sad Convention Finale For A Visitor

As was reported briefly in the last month's issue of Zero Beat, Harry E. Legler, WØPB, of Hiawatha, Kan., had a "very poor ending" to his visit to the Rocky Mountain Division Convention in the Springs June 19 and 20.

According to a letter received the day Zero Beat had to go to the printer and there was only a very small space available at the last minute, someone broke into his car, parked in the area beneath the Antlers Plaza Hotel and did a good job of stripping him of radio and other equipment.

According to part of WØPB's letter:

"Monday morning at about 8 a.m. I made the first trip down the elevator to the garage to load some of the belongings. . . I found the car doors unlocked. The right front wing vent was cranked open. . .

"What could those battery leads with spade terminals be doing on the floor near the foot feed? There was no microphone on a hanger or coiled cord



## ROSIE'S REPORTINGS

By  
Rosemarie Lewis  
WAØMNL

David Humula, Associate member, received his novice call of WNØSHO. Anyone having a spare novice xtal, please call Dave at 471-7024. With the upcoming change in the novice band it's hoped we can supply novices in the club with xtals.

-rr-

WØSKB, Paul King, Vlack Forest, suffered a stroke in March. He is back home from the hospital, is able to be up and about and receiving therapy.

-rr-

A word to WØGCH--George, the stork is hovering near your house, so be sure your vehicles have plenty of gas.

-rr-

According to word received from the Colorado Dept. of Revenue, it is not possible to have call letter license plates for areas outside of Colorado. (Such as K5RDY, etc.) To qualify for call plates, an applicant must have Colorado call letters, a valid FCC license and be the titled owner or joint owner of the vehicle. Only one set of license plates to any one FCC license. I have a few of the applications and will have them at the picnic and the meeting. Also, I've been told once you send in a copy of your ticket, they keep it on file and you don't need to send one in again.

-o-o-o-o-

## Footrace

(Continued from Cover)

AAU district and the Boitanos, who have participated in running events throughout California, were recently entered in the San Francisco Examiner's 50th annual Bay to Brekaers Race, about eight miles in length.

The youngest Boitano, Mary Etta, participated in that race but she has previously run 26-mile marathons.

-o-o-o-o-

Don't forget we are only two months away from the annual PPRAA meeting on October 13 at which time election will be held to fill the four director vacancies and the 1972 officers of the club.

The list of candidates nominated by a committee headed by Art Mayer, WAØAEH, will be carried in the September Zero Beat, along with instructions on how, according to the PPRAA By-Laws, additional candidates for these offices may be nominated by the members.

Be sure and mark October 13 on the calendar so you will be sure to attend the annual meeting to help select the most capable PPRAA members

## CRS—An 'Intruder' On Amateur Band?

Chic Cotterell, WØSIN, editor of the Denver Radio Club "The Round Table," stated in his June 1971 issue:

"Bob Swanlund, WØWYX, sends us a clipping from the May 10th Electronic News that says the officials of the Electronics Industries Association (EIA) will meet with the FCC to discuss a proposal for a new private Citizens Radio Service.

"Further it states that the proposal is sure to be opposed by amateur radio ham groups.

"The reason given for filing the proposal was that it would open a huge new market for communications firms.

"It would have 80 channels and the EIA thinks it would accommodate 2.5

million new licensees with a cost of \$100-to-\$300 million for equipment.

"It goes further and quotes the benefits of such a change from amateur to CRS of the 220 to 222 MHz portion of this band.

"It doesn't mention that this is shared with the military and you will note that power levels are reduced in certain areas by FCC regulation.

"EIS notes that this service would cover from 10 to 20 miles and would be free from skip sigs.

"Could we be faced with an "either" or" in this amateur band. Either CRS or a limited type amateur class license?"

## You May Be Interested In This 'Service'

Don't make a habit of plugging commercial enterprises (except, of course in the case of those who advertise in Zero Beat), but some Zero Beat readers, especially those interested in selling or buying used electronic gear, might be interested in a service known as "Equipment Exchange - Ham Trader," a copy of which Dale Green, WØLDY, sent us after a discussion at the convention banquet.

It is a twice a month publication of several typewritten pages of electronic gear, parts, books, etc., listing wanted and for sale items from all over the United States.

In case anyone is interested, it is published by A. L. Brand, WA9MBJ, P. O. Box 311 or 415 E. Sycamore St., Sycamore, Illinois 60178. Subscription price is 6 issues (3 months) \$1; 24 is-

sues (1 year) \$3; 50 issues (2 years and 1 month) \$5.

-o-o-o-o-

Kenneth H. Fry, WAØWRJ, a PPRAA member for several years, passed away Sunday, July 25 after a long period of illness.

Jim Irvin, WA7MRR/Ø, Jim James, WAØTAV, and Doc Cornell, WØMGT, were among the pallbearers for the funeral.

Ken, then a Sergeant First Class at Fort Carson, first joined the PPRAA as an associate member. Later he became a novice with the call WNØQNG, a call which expired during one of his periods of hospitalization at Fitzsimons General Hospital in Denver. After leaving the hospital he received the conditional call WAØWRJ after taking the examination from Jim James.

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## PRESIDENT'S NEWS

Well, here I am again--time do fly!

People are still talking about the convention, so space last month did not permit us to thank all the Pueblo Club and all their efforts. WA0UZO, Bob Shriner, did us proud with his 2 meter FM rig. And the devotion of W0KWV, Irv Ebel, at the ARRL table was commendable for sure. And how about Dale Green and his steady work on the prizes and not getting one himself?

W0ELE, Harold, and WA0CND, Bonnie, and the Gorders did such a fine job to make the meal wait line at the Chuck Wagon Supper much more pleasant. We're still receiving compliments so bouquets to you all.

To give everyone a "break" the picnic will be informal--not so much work type of affair, but with plenty of food

and fun, so don't miss it. You might with to bring a lawn chair to take it easy in (we may be short some sifter space.)

Sorry we missed the last meeting--we decided we'd let George do it (Tx much, George). We enjoyed a Iowa trip and were honored guests at a basket dinner. We even attended a Ham Club meeting while in Iowa. Most of the members have to travel a long way to the meetings. One couple drove 70 miles--one way. That's club spirit.

How about YOU? PPRAA is a good way to get together with fellow amateurs. Bring the family and attend the August 8 picnic and August 11 meeting. They promise to be outstanding events.

I hope to see you at both of them!

73 ---Rosie

## HISTORICALLY YOURS

By "Doc" Cornell  
W0MCT



15 years ago--El Paso Radio Club. Local problems with an unmodulated carrier and the tracing techniques using mobiles was discussed. The carrier has been interfering with the Colorado Emergency Net on Sundays. TVI and the methods of eliminating it were discussed.

-0-

10 years ago--PPRAA, VHF Committee presented program for meeting and also discussed method to be used for Nominating Committee for slots for officers for next year.

-0-

5 years ago--PPRAA, Field Day netted 3036 points. The 2 meter repeater is in operation. PPRAA was invited to the CB Jamboree to be held at Peterson Field.

-0-0-0-0-

## Sad Finale

(Continued from Page 2)

Harry said the garage manager was sympathetic but said he could only file a report to his insurance company and notify the police. Also stated the manager stated it was too expensive to hire security guards. The police found one fresh fingerprint which was lifted.

"There were no marks of forced entry but our thief knew what he was doing," wrote Harry. "Those whips on the car told him what to look for under the seat, not the dash. He knew how to unscrew the coax antenna line connector and it was easy to disconnect the battery leads to the relay box I had mounted on the rear end of the TPL. He did, however, break the extension speaker wires from the miniplug instead of pulling out the plug."

Harry asked in his letter that if any of Zero Beat readers "come across a G.E.TPL with a serial number 9390077 a missing red pilot light plastic bezel (I painted the pilot light itself red), with a Topeka FM Engineering preamp where the number two transmit oscillator deck should be, with a mini jack on the control panel for an extension speaker, a home brew relay housing on the rear end, or a tool box that had my name label on top, I would sure appreciate hearing about it. I would much rather have the equipment back than any insurance money which, as of now, appears very doubtful."

Will Zero Beat readers keep on the lookout, and if they find any "leads" contact the Springs police or Harry E. Legler, W0PB, 304 Miami Street, Hiawatha, Kansas 66434, phone (913) 742-3102?

## New Mexico Hamfest

(Continued from Page 1)

that can be passed on to Zero Beat readers.

One article did mention that the Hamvention Committee "was progressing very well" and said that Don Fowler, K5TBC, was ticket chairman and that Fred Bacon, W5STB, and Rosie Bacon, WA5LKK, will help with the registration.

If you're interested, guess you'll have to look up their addresses in your call book or write for information to New Mexico Hamvention, P.O. Box 14381, Albuquerque, N. M. 87111--the return address stamped on the issue of the New Mexico Ham received.

-0-0-0-0-

There IS something bigger than money--it's BILLS!

## Applications Due Sept. 15

PPRAA members and other Colorado hams who plan to get 1972 call letter license plates for their vehicles will have to act soon--the application will have to be in Denver before September 15.

As Rosie states in her column, only holders of Colorado amateur tickets may apply for Colorado call letter license plates.

All necessary instructions for filing for the special plates are on the back of the application form

As the result of a recent amendment to the license fee act, call letter plates will cost \$2 plus the cost of the regular plates for your car.

Rosie will have copies of the application forms at the picnic and at the regular meeting August 11.

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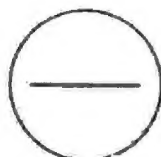
# UNDERSTANDING TRANSISTORS

By Jim White WB6RAG

(From the Tulare County (Calif.) Radio Club "Grid Leak"  
via the Central California Radio Council "Circle")

## LESSON 24

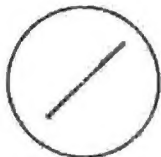
### BASIC WAVE FORMS FOR CURVE TRACER



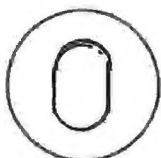
Ope



Short

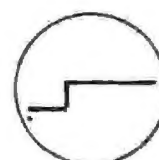
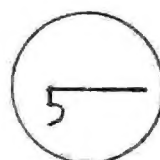
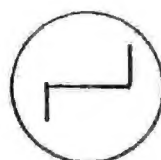
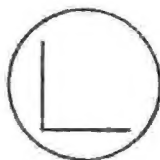


Resistance



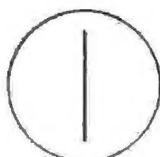
Capacitance

WAVE FORMS WHEN COMPONENT IS IN THE CIRCUIT WILL  
PROVIDE A COMBINATION OF TWO WAVE SHAPES

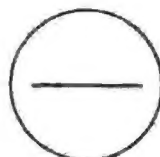


Capacitance and resistance may mask the response of the wave shape but if there is evidence of a sharp current change this is the key to identifying a good solid state component from a defective one.

A defective transistor can show three basically different patterns.



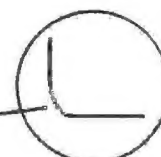
Short



Open

#### NOTE:

Unsharp Junction



Leakage

More basic wave forms next lesson.

## What Is SSN?

(Continued from Page 1)

reason to make the effort, but there are others. You can make 5BWAS or 5BDXCC on 160 through 15 instead of 80 through 10.

It's quite a challenge to work DX on 160. I have worked most states as well as the Virgin Islands (American and British) using a base-loaded vertical.

For contestors, CQ and ARRL each have an annual 160 meter contest.

For ragchewers, you can yak for hours without the threat of creeping QRM! And 160 meter natives are a pretty friendly bunch.

So whatever you like to do, do it on 160 meters and join us on Silver State Net. WE NEED YOU on 1981 kHz at 0100Z (7 p.m. MDT) every night of the week.

-0-0-0-0-

WANTED---Xtals and semi-automatic key. Mike Anderson, WNØEQM. 510 West Polk, Phone 632-7843.

-0-

WANTED---Novice crystals Will pay 50¢ each. Dave Hamula, WNØFHO, Phone 471-7024.

-0-

FOR SALE---Mint Drake TR4 rig. AC 4 with warranty card. MS4 SWR, bug, matching mike. Ham magazines, etc. \$510.00. WAØVSN, Russel Geoffry---2003 N. Tejon. Phone 635-8183.

In an ad in the latest High Fidelity magazine showing the latest in stereo tuners by H. H. Scott, the tuner pictured has no dials! It is tuned by a programmed card which is inserted in

a slot in the panel with 100 programmed cards for the 100 FM frequencies. How handy this would be in a ham receiver, with a card programmed for each net frequency! Insert the card--you're on!

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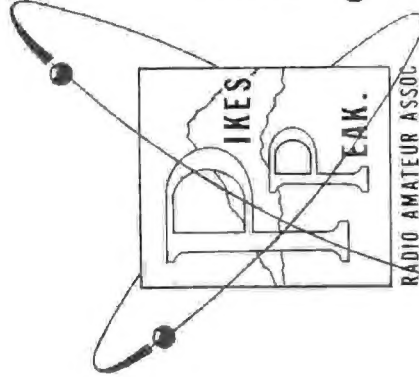
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**COLORADO SPRINGS, COLORADO**

**August 1971**

## PPRAA To Again Provide Communications For Footrace Up Pikes Peak August 15

The PPRAA's "public service operation" for August will, as in past years, be that of furnishing communications for Rudy Fahl's 16th annual Pikes Peak Marathon Run.

This means a station at the start of the run up Pikes Peak, stations along the way to report the progress of the runners and summon aid for any who might suffer injury or other troubles along the way which call for medical attention, and a station at the top of the Peak to check in and help time the runners in their footrace to the top of Pikes Peak and return to the starting point.

Rudy has repeatedly praised the job that the PPRAA has done in providing communications for his run and the PPRAA will be repeating that same kind of "public service" on August 15 when the field of marathon runners competes to see who can be the first to complete the grueling footrace up the Peak and down again.

George Kowalski, WØGCH, will have charge of the PPRAA communications contribution to the marathon. According to George, the communications will probably be by 2 meter FM and he is counting on assistance from Bill King, WØLKD, Bob Bowers, WAØMQE, Barry Mitchell, K3WKV/Ø and Harl Porter, K7CAN/Ø.

An interesting group of competitors in this year's race, the first entrants, according to a story in one of the local daily papers, will be the John N. Boitano family. "Probably the best known runners in the San Francisco area where the family normally does its jogging." Boitano is 49.

Entering the race with him will be his 48-year-old wife, Mary Lucille and two of their children, Michael, age 9, and Mary Etta, age 8. They will be the first family to compete in the event in its 16-year-old history.

Mike presently holds the age group nine and under record for the Pacific (Continued on Page 3)